

ABSTRACT OF THE DISCLOSURE

A chuck assembly includes a housing formed with a hydraulic fluid inlet, a sleeve mounted in the housing and formed with an annular groove, a shaft
5 mounted rotatably in the sleeve and formed with a fluid passage, a chuck unit mounted in the shaft, a piston subdividing a chamber between the chuck unit and the shaft into first and second compartments, and a cooling mechanism having an air inlet formed in the
10 housing, and an air channel formed in the sleeve and in fluid communication with the air inlet and the annular groove.